



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Kazuo USHIDA et al.

Application No.: 09/320,472

Filed: May 25, 1999

For: PROJECTION EXPOSURE APPARATUS

Group Art Unit: 2851

Examiner: A. Mathews

Docket No.: 11019798

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AMENDMENT IN REISSUE APPLICATION

Director of the U.S. Patent and Trademark Office
Washington, D.C. 20231

Sir:

In reply to the Office Action dated April 4, 2001, the shortened statutory period for reply being extended by the attached Petition for Extension of Time, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 26-29, 91, 93 and 95-97 with the following amended claims:

26. (Twice Amended) A projection exposure apparatus comprising:
an illumination optical system in which an optical system is disposed on an
optical path to form an annular secondary light source with light emitted by a first light
source, said optical system changing an annular ratio of an inner diameter to an outer
diameter with respect to the annular secondary light source; and
a projection optical system disposed in an optical path between the mask and a
substrate so as to project an image of the mask onto the substrate;
said illumination optical system satisfying the following condition:
$$\frac{1}{3} \leq d_1/d_2 \leq \frac{2}{3}$$